



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/581,067	05/31/2006	Franz Schwendemann	3693	2076

7590
Striker Striker & Stenby
103 East Neck Road
Huntington, NY 11743

09/16/2009

EXAMINER

BOES, TERENCE

ART UNIT	PAPER NUMBER
----------	--------------

3656

MAIL DATE	DELIVERY MODE
-----------	---------------

09/16/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/581,067	Applicant(s) SCHWENDEMANN, FRANZ	
	Examiner TERENCE BOES	Art Unit 3656	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Appeal Brief

1. The appeal brief filed 06/29/2009 improperly submitted an amendment to the claims which was never actually entered. The appeal brief would have been held non-compliant as the status of amendments section would have been incorrect. However, because prosecution has been re-opened, the issue is moot and the instant discussion is merely provided for explanation and clarity.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 11, lines 4 and 8, recite “at least one face end” and “on one of the face ends”, rendering the claim indefinite. The recitation implies there may be another, or additional face ends. It is unclear what or where these additional face ends are. It is unclear if applicant is reciting additional face ends. The examiner suggests - - one face end - -.

Art Unit: 3656

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, 10, 11, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Kretzmer JR US 2,987,349 in view of Andrei-Alexandru et al. US 4,652,781 and further in view of Leppanen US 7,143,845.

Kretzmer JR discloses:

- a rotor shaft (15), which is supported in a housing (12)
- a separate toothed element (20) for transmitting torque to a gear component (21), wherein said toothed element (20) is secured to the rotor shaft (15),
- wherein the toothed element (20),
- wherein the toothed element (20) further has an axial bracing face (23), wherein said toothed element is braced on an element (24) on the housing (12), wherein said element (24) presses with a predeterminable pressing force against the axial bracing face
- wherein the toothed element (20) has a worm gear (20 is a worm), a cone wheel toothing, or a straight or oblique pinion toothing, which meshes with a further gear element (21)

Art Unit: 3656

- wherein the toothed element (20) has a bore (see inside of 20 in figure 1) formed as a blind bore
- wherein a bottom face is disposed on a lower end of the bore (see bottom of bore in 20)

Kretzmer JR does not disclose an adjustable adjusting element.

Andrei-Alexandru et al. teaches an adjustable adjusting element (35, or 43) for the purpose of making adjustable (C6/L23) thus adjusting backlash.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the teachings of Kretzmer JR and provide an adjusting element, as taught by Andrei-Alexandru et al., for the purpose of making adjustable thus adjusting backlash.

Kretzmer JR discloses a torque transmitting shaft rotationally engaged inside a rotary body. Kretzmer JR does not disclose an axial bearing face which rests on a bottom face of a bore. Leppanen teaches an axial bearing face which rests on a bottom face of a bore (see 80, 83 and 89 in figure 6). Because both Kretzmer JR and Leppanen teach torque transmitting shafts rotationally engaged inside rotary bodies, it would have been obvious to one having ordinary skill in the art at the time of the invention to provide an axial bearing face which resting on a bottom face of a bore for to achieve the predictable result of transmitting torque.

1. Claims 4, 5, 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kretzmer JR US 2,987,349 in view of Andrei-Alexandru et al. US 4,652,781 in view of

Art Unit: 3656

Leppanen US 7,143,845 as applied to claim 1 above, and further in view of Hunter et al. US 2003/0048969.

Kretzmer in view of Leppanen discloses an axial rotary bearing structure.

Kretzmer in view of Leppanen does not disclose a through opening receiving a ball that has a bracing face. Hunter et al. teaches a through opening (92) receiving a ball (20, 22, 24, 26, see figure 10) that has a bracing face. Because both Kretzmer in view of Leppanen and Hunter et al. teach axial rotary bearing structures, it would have been obvious to one having ordinary skill in the art at the time of the invention to provide a through opening receiving a ball that has a bracing face to achieve the predictable result of axially bearing a rotating member.

2. Claims 6-9, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kretzmer JR US 2,987,349 in view of Andrei-Alexandru et al. US 4,652,781 in view of Leppanen US 7,143,845 in view of Hunter et al. US 2003/0048969 as applied to claim 5 above, and further in view of Ursel et al. US 6,486,577.

Kretzmer in view of Leppanen in view of Hunter et al. discloses all of the claimed subject matter as described above. Kretzmer in view of Leppanen in view of Hunter et al. does not disclose knurling in an axial portion, wherein in the axial region of the knurling the bore has a lesser inside diameter than in regions of the rotor shaft that are without knurling, and a rotor shaft is connected to a toothed element in a region having knurling via a press fit, and in a region without knurling is connected via a clearance fit.

Art Unit: 3656

Ursel et al. teaches knurling (see knurling on shaft 22 between shaft 22 and worm 26) in an axial portion, wherein in the axial region of the knurling the bore has a lesser inside diameter than in regions of the rotor shaft that are without knurling (knurling would deform the bore to have this structure), and a rotor shaft is connected to a toothed element in a region having knurling via a press fit, and in a region without knurling is connected via a clearance fit (see shaft 22 fit into worm 26 in figure 1) for the purpose of forming an improved rotational connection, as is well known in the art.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the teachings of Kretzmer in view of Leppanen in view of Hunter et al. and provide knurling in an axial portion, wherein in the axial region of the knurling the bore has a lesser inside diameter than in regions of the rotor shaft that are without knurling, and a rotor shaft is connected to a toothed element in a region having knurling via a press fit, and in a region without knurling is connected via a clearance fit, as taught by Ursel et al., for the purpose of forming an improved rotational connection, as is well known in the art.

Kretzmer JR further discloses:

- Wherein the rotor shaft, after an integral forming on the radial bump, is through-ground (product by process claims are not limited to the manipulations of the recited steps, only the structure implied by the steps, see MPEP 2113).
- Wherein the rotor shaft is axially mountable through a bearing sleeve in the housing (shaft is capable of being mounted, in addition see 30)

Art Unit: 3656

Regarding claim 13, product by process claims are not limited to the manipulations of the recited steps, only the structure implied by the steps, see MPEP 2113.

Response to Arguments

3. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TERENCE BOES whose telephone number is (571)272-4898. The examiner can normally be reached on Monday - Friday 9:00 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on (571) 272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/581,067

Page 8

Art Unit: 3656

/Terence Boes/
Examiner, Art Unit 3656

/Richard WL Ridley/
Supervisory Patent Examiner, Art Unit 3656